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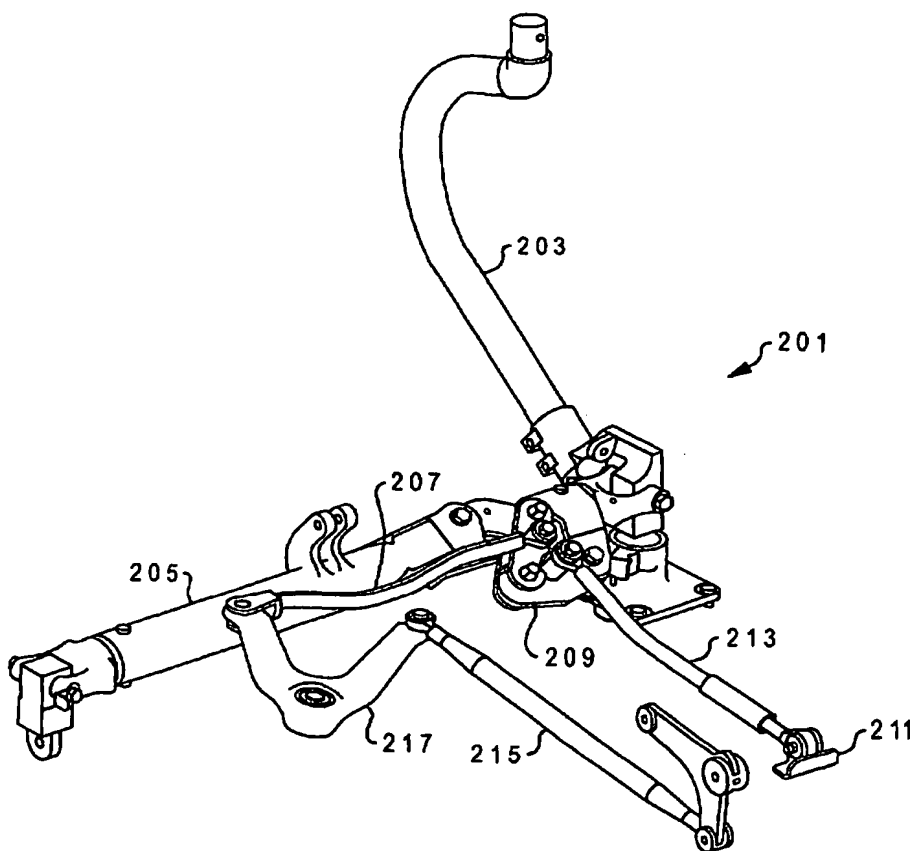
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[Continued on next page]

(54) Title: ROTORCRAFT CONTROL SYSTEM WITH STEPPED MIXING LINKAGE



(57) Abstract: A control system for a rotorcraft is disclosed. The control system includes a stepped mixing linkage (53), such that a selected amount of right-left lateral cyclic output is generated for certain amounts of forward-aft cyclic input. The stepped mixing linkage (53) includes two supporting links and a floating link (73) pivotally coupled between the two supporting links. The ratio of the lengths of the two supporting links to the length of the floating link (73) is small, thereby generating a selected lateral sinusoidal output, a selected rotation of the sinusoidal output, and a selected ramped output in response to each forward-aft pilot input command.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B64C 27/52

US CL : 244/17.11,17.25; 416/ 37,40,112-114,117-118

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
NONE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3799695 A (YAMAKAWA) 26 MARCH 1974 (26-03-1974) SEE FIGURE 1	1-16
Y	US 3999726 A (CARLSON ET AL) 28 DECEMBER 1976 (28-12-1976) SEE FIGURE 4	1-16
Y	US 4059247 A (PREWITT) 22 NOVEMBER 1977 (22-11-1977) SEE FIGURE 26	1-16
Y	US 5190243 A (GUIMBAL) 02 MARCH 1993 (02-03-1993) SEE FIGURE 2	1-16

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O"	document referring to an oral disclosure, use, exhibition or other means		
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